sugar moiety selected from the group consisting of L and D, aldo- and keto-, tetroses, pentoses, hexoses, heptoses, amino, alcohol and/or acid derivatives and deoxy analogs thereof;

peptide;

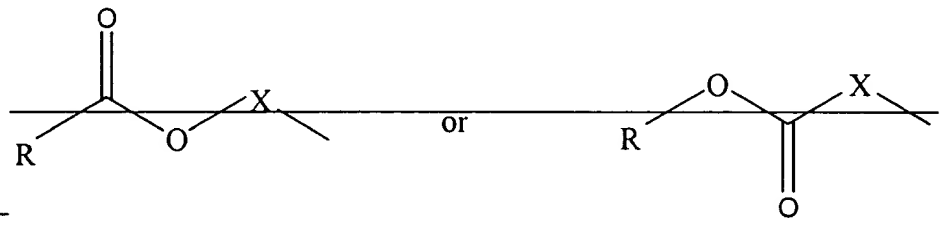
polyether;

~~straight chain alkyl having 1-11 carbon atoms, or branched chain alkyl having 1-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 1-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;~~

~~hydroxalkyl where the alkyl portion is straight chain alkyl having 2-11 carbon atoms, or branched alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;~~

aminoalkyl where the alkyl portion is straight chain alkyl having 2-11 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms;

~~carboxyalkyl where the alkyl portion is straight chain alkyl having 2-11 carbon atoms, or branched chain alkyl having 2-30 carbon atoms, where the branched chain alkyl comprises a straight chain alkyl portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 atoms; or~~



~~where X is straight chain alkylene having 2-11 carbon atoms, or branched chain alkylene having 2-30 carbon atoms, where the branched chain alkylene comprise a straight a chain~~

~~alkylene portion having 2-11 carbon atoms substituted with straight or branched chain lower alkyl groups having 1-6 carbon atoms; and~~

~~R^+ is straight or branched alkyl having 1-6 carbon atoms,~~

in an amount effective to increase concentration of ~~an~~ a biogenic aldehyde formed during catabolism of a neurotransmitter.

6. (Amended) The method of claim 3 wherein said biogenic aldehyde is 5-hydroxyindole-3-acetaldehyde or 3,4-hihydroxyphenyl-3-acetaldehyde.

Remarks

Claims 1-6 were pending in the application. Claims 1 and 2 have been allowed. Claim 4 has been cancelled without prejudice and without disclaimer of the subject matter contained therein. Applicants have amended several of the remaining claims in light of the outstanding rejections. Claims 1-3 and 5-6 remain pending.

Allowable Claims

Applicants note with appreciation the withdrawal of all prior rejections of Claims 1 and 2 and the indication of allowance of those claims on page 6 of the Action.

35 U.S.C. § 103

Claims 3 - 5 remain rejected under 35 U.S.C. § 103 over Keung et al. Applicants have amended independent claim 3 to claim only non-glucose sugar moieties, peptides, polyether, or aminoalkyl substituents in the R position. Keung et al. simply does not teach or suggest these claimed compounds.

Double Patenting

Claims 3-6 stand rejected under the judicially created doctrine of obviousness type double patenting over U.S. Patent Nos. 5,886,028 and 5,064,910, both to Vallee.

Vallee '028 and Vallee '910 are related applications, and contain identical disclosures, therefore, although applicants believe Vallee '028 is ripe for removal as prior art under 37 CFR § 103(c), applicants treat Vallee '028 and Vallee '910 together.

Neither Vallee '910 nor Vallee '028 teach or suggest the use of non-glucose sugar moieties, peptides, polyether, or aminoalkyl substituents as claimed for R. Neither Vallee '028

not Vallee '910 teach or suggest the claimed chemical structure. Applicants respectfully request withdrawal of the double patenting rejection based on Vallee '028 and Vallee '910.

35 U.S.C. § 102

Claims 3-6 stand rejected under 35 U.S.C. § 102 as anticipated by Vallee '910 and Vallee '369. Independent Claim 3 has been amended to overcome this rejection.

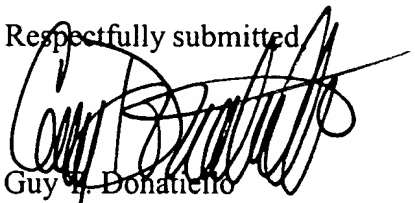
Vallee '369 discloses the use of daidzin to reduce alcohol consumption. By definition, daidzin includes a glucose moiety at the R position. In col. 18, the reference discusses chromomes, coumarins, and isoflavones. Daidzin is an isoflavone. After further discussion, Vallee '369 concludes that not all chromomes, coumarins, and isoflavones inhibit ALDH. Specifically, only daidzin, genistin, and 4'-isopropylisoflavone were found to be effective isoflavones.

Applicants claim the use of daidzin analogs, which also are isoflavones. According to Vallee '369, R was only glucose. Claim 3 was amended to define R as a sugar moiety other than glucose, and specifically as one of L and D aldo- or keto-tetroses, pentoses, hexoses, heptoses or the amino, alcohol and/or acid derivatives of such tetroses, pentoses, hexoses or heptoses; or wherein the glucose is replaced by the deoxy analogs of such tetroses, pentoses, hexoses or heptoses as discloses in applicants' specification on page 11, lines 1-5, as originally filed. Daidzin, genistin, and 4'-isopropyl isoflavone are not encompassed by the claimed chemical structure. In fact, none of the structurally related compounds in Table IV of Vallee '369 are encompassed by applicants claims. Similarly, Vallee '910, which is a continuation in part of Vallee '369, also has these deficiencies. Applicants respectfully submit that Vallee '910 and Vallee '369 do not teach or suggest that R can be sugars other than glucose. Similarly, Vallee '910 does not teach or suggest that R can be peptide polyether or amioalkyl as presently claimed.

Accordingly, Vallee '910 and Vallee '369 do not teach or suggest each and every claimed element. Applicants respectfully request withdrawal of 35 U.S.C. § 102 rejection based on Vallee '910 and Vallee '369.

Applicants respectfully submit that all pending claims are now in condition for allowance. Accordingly, early reconsideration and allowance of all pending claim is respectfully requested.

Respectfully submitted,



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